

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KENNETH R. SWARTZEL, HERSHELL R. BALL, JR.,
and MOHAMMAD-HOSSEIN HAMID-SAMIMI

Appeal No. 1998-2941
Application No. 08/061,985¹
Reexamination Control No. 90/003,682²

HEARD: August 16, 1999

Before McQUADE, NASE, and KRATZ, Administrative Patent Judges.
NASE, Administrative Patent Judge.

¹ Application filed May 14, 1993, for reissue of U.S. Patent No. 5,019,408 (Application No. 07/628,716, filed December 17, 1990), which according to the appellants is entitled under 35 U.S.C. § 120 to the benefit of the filing date of Application No. 06/904,744, filed September 8, 1986, now U.S. Patent No. 4,808,425.

² Reexamination for U.S. Patent No. 5,019,408. Request for reexamination filed January 5, 1995. The reexamination proceeding was merged with the above-noted reissue application on June 26, 1995.

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DECISION ON APPEAL

This is an appeal from the refusal of the examiner to allow claims 1 to 35 and 46, as amended subsequent to the final rejection. Claims 36 to 45 and 47 have been canceled.

We AFFIRM-IN-PART and enter new rejections pursuant to 37 CFR § 1.196(b).

BACKGROUND

The appellants' invention relates to a method of ultrapasteurizing a liquid whole egg product (claims 1 to 11, 18/1, 18/4, 18/8, 19/1, 19/4 and 19/8), a method of making a packaged liquid whole egg product (claims 12 to 17, 18/12, 18/16, 19/12 and 19/16), a packaged liquid whole egg product (claims 20 to 27 and 46/20) and an aseptically packaged liquid whole egg product (claims 28 to 35 and 46/28). A copy of the claims under appeal appears in "APPENDIX A" to the appellants' brief.

The following is a listing of the art of record cited by the examiner in the answer:

(1) Hanson et al. 1946. "Pasteurization of Liquid Egg Products - V. The Effect on Performance in Custards and Sponge Cakes." Journal Paper No. J-1446 of the Iowa Agriculture Experiment Station, Ames, IA. Project No. 811. Pages 277-283. (Hanson)

(2) Murdock et al. 1960. "The Pasteurization of Liquid Whole Egg." Mon. Bull. Minist. Hlth. Lab. Serv. Vol. 19. Pages 134-152. (Murdock)

(3) Stadelman. 1977. 2nd Edition. Egg Science and Technology. AVI Publishing Co., Westport, CT. Pages 161-186. (Stadelman)

(4) News and Observer newspaper. Raleigh, N.C. "NCSU Researchers Crack the Secret of Long Shelf-Life for Eggs." Published 9/3/85. Page 8A. (News & Observer article)

(5) Food in Canada. 1964. Vol. 24. "Non-Stop Liquid Egg Process Said to Destroy Salmonella." Page 28. (Food in Canada)

(6) Chester-Jensen Company, Inc. publication. "Improved Parallel Flow Plates Maintain Maximum Heat Transfer; Assure Utmost Economy." Pages K1-3 to K1-6. February, 1963. (Chester-Jensen)

(7) Moller-Madsen. "Pasteurization of Egg Products." Sundhedsplejen. Published December 1958. Pages 102-105. (Moller-Madsen)

(8) Winter et al. "Pasteurization of Liquid Egg Products - I. Bacteria Production in Liquid Whole Egg and Improvement in Keeping Quality." Food Research. November, 1946. Pages 229-245. (Winter)

(9) Payawal et al. "Pasteurization of Liquid Egg Products. II. Effect of Heat Treatments on Appearance and Viscosity." Food Research. November, 1946. Pages 246-260. (Payawal)

(10) Abstract concerning Poultry Science Association Annual Meeting. July 29-August 2, 1985. Iowa State University, Ames, IA. (PSA abstract).

(11) Mohammad-Hosseini Hamid-Samimi Thesis: Criteria Development for Extended Shelf-Life Pasteurized Liquid Whole Egg. 1984.³ (Hamid-Samimi thesis)

(12) Veerkamp et al. Food Science Technology. Vol. 7. No. 5. 1974. Pages 306-310. (Veerkamp)

(13) U.S. Patent No. 4,511,589. Padley et al. April 16, 1985. (Padley)

(14) Great Britain Patent No. 612,503. November 15, 1948. (GB 612503)

(15) U.S. Patent No. 3,212,906. Jones. October 19, 1965. (Jones)

³ The appellants state (brief, p. 71) that they are unaware as to whether this thesis was cataloged and available prior to the critical date, and hence, whether it is "prior art." However, for purposes of this decision we will assume that this thesis is "prior art."

- (16) Japan 58-63368. Q. P. Corp. April 15, 1983.
(Japan 63368)
- (17) U.S. Patent No. 2,936,240. Kauffman et al. May 10, 1960. (Kauffman)
- (18) Egg Pasteurization Manual. U.S. Department of Agriculture, Agricultural Research Service, February 1969. (Egg Pasteurization Manual)
- (19) U.S. Patent No. 4,695,472. Dunn et al. September 22, 1987, filed May 31, 1985. (Dunn)
- (20) Donchev et al., Khranitelna Promishlenost, (1979) 28 (8). FSTA database abstract (AN: 81 (07):Q0091). (Donchev)
- (21) U.S. Patent No. 3,717,474. Fioriti et al. February 20, 1973. (Fioriti)
- (22) U.S. Patent No. 4,333,959. Bracco et al. June 8, 1982. (Bracco)

The following rejections are before us in this appeal⁴:

(1) Claims 1, 18/1, and 19/1 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hanson taken together with Payawal, Winter, Applicants' own admission, Hamid-Samimi thesis, News & Observer article, PSA abstract and any one of Moller-Madsen, GB 612503, and Jones. In addition, the Egg Pasteurization Manual is cited as an evidentiary showing.

⁴ Since the other grounds of rejection set forth in the final rejection were not set forth in the examiner's answer we conclude that these other grounds of rejection have been withdrawn by the examiner. See Ex parte Emm, 118 USPQ 180, 181 (Bd. App. 1957).

(2) Claims 3-6, 8-10, 12, 14, 15, 18/4, 18/8, 18/12, 19/4, 19/8, and 19/12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the references as applied in (1) above further in view of any one of Stadelman, Chester-Jensen, Food in Canada, and Veerkamp.

(3) Claim 2 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the references as applied in (1) above in

view of Padley, and claims 7, 11, 13, 16, 17, 18/16, and 19/16 stand rejected under 35 U.S.C. § 103 as being unpatentable over the references as applied in paragraph (2) above in view of Padley.

(4) Claims 20, 25-28, 33-35, 46/20, and 46/28 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Dunn.

(5) Claims 20, 22, 23, 25-28, 30, 31, 33-35, 46/20, and 46/28 stand rejected under 35 U.S.C. § 102(b) as being anticipated by either one of the News & Observer article or the PSA abstract.

(6) Claims 20, 22-27, and 46/20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Donchev.

(7) Claims 22-24 and 30-32 stand rejected under 35 U.S.C. § 103 as being unpatentable over Dunn.

(8) Claims 21 and 29 stand rejected under 35 U.S.C. § 103 as being unpatentable over any one of Dunn, the News & Observer article, and the PSA abstract as set forth above (i.e., paragraphs (4)-(6) above) further in view of Fioriti and Bracco.

(9) Claims 3-17, 18/4, 18/8, 18/12, 18/16, 19/4, 19/8, 19/12, 19/16, 28-35, and 46/28 stand provisionally rejected under 35 U.S.C. § 101 as claiming the same invention as that of claims 1, 3-17, 18/1, 18/4, 18/8, 18/12, 18/16, 19/1, 19/4, 19/8, 19/12, 19/16, 28-35, and 46 of copending reissue application No. 07/880,899.

(10) Claims 20-27 and 46/20 stand rejected under 35 U.S.C. § 112, first paragraph.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the final rejection (mailed

September 13, 1996) and the answer (mailed May 21, 1997) for the examiner's complete reasoning in support of the rejections, and to the brief (filed February 12, 1997) and reply brief (filed July 21, 1997) for the appellants' arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, to the evidence of nonobviousness submitted by the appellants and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

Rejections (1), (2) and (3)⁵

We will not sustain the rejection of claims 1 to 19 under 35 U.S.C. § 103.

⁵ These rejections concern method claims 1 to 19.

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A prima facie case of obviousness is established by presenting evidence that would have led one of ordinary skill in the art to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988) and In re Lintner, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

In this case, all of the examiner's rejections of method claims 1 to 19 are founded on the basis that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Hanson's method of pasteurizing liquid whole eggs to have included an aseptical packaging step to extend the shelf life of a refrigerated egg product based on the teachings of the News and Observer article, the PSA abstract and the thesis of Hamid-Samimi, and/or to have pasteurized Hanson's liquid whole eggs as

taught by the teachings of Jones, GB 612503 or the Moller-Madsen article. We do not agree with the examiner on this matter. In this regard, it is our opinion that the only suggestion for modifying Hanson in the manner proposed by the examiner stems from hindsight knowledge derived from the appellants' own disclosure.⁶ That is, it is our view that one skilled in the art following the teachings of the News & Observer article, the PSA abstract and the Hamid-Samimi thesis to prepare an extended shelf life liquid whole egg product would not have deviated from the specific pasteurizing techniques taught by the News & Observer article, the PSA abstract and the Hamid-Samimi thesis unless provided with sufficient motivation. In this case, it is our determination that the prior art as applied lacks sufficient motivation for an artisan to have done so.

⁶ The use of such hindsight knowledge to support an obviousness rejection under 35 U.S.C. § 103 is, of course, impermissible. See, for example, W. L. Gore and Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

For the reasons stated above, the decision of the examiner to reject claims 1 to 19 under 35 U.S.C. § 103 is reversed.

Rejection (4)

We sustain the rejection of claims 20, 25-28, 33-35, 46/20, and 46/28 under 35 U.S.C. § 102(e) as being anticipated by Dunn.

Initially we note that anticipation by a prior art reference does not require either the inventive concept of the claimed subject matter or the recognition of inherent properties that may be possessed by the prior art reference. See Verdegaal Bros. Inc. v. Union Oil Co., 814 F.2d 628, 633, 2 USPQ2d 1051, 1054 (Fed. Cir.), cert. denied, 484 U.S. 827 (1987). A prior art reference anticipates the subject of a claim when the reference discloses every feature of the claimed invention, either explicitly or inherently (see Hazani v. Int'l Trade Comm'n, 126 F.3d 1473, 1477, 44 USPQ2d 1358, 1361 (Fed. Cir. 1997) and RCA Corp. v. Applied Digital Data

Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984)); however, the law of anticipation does not require that the reference teach what the appellants are claiming, but only that the claims on appeal "read on" something disclosed in the reference (see Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), cert. denied, 465 U.S. 1026 (1984)). In addition to identity of invention, anticipation requires that a prior art reference must be enabling, thus placing the allegedly disclosed matter in the possession of the public. Thus, it is well established that a prior art reference cannot anticipate an invention under section 102 unless it is enabling. See In re Paulsen, 30 F.3d 1475, 1481, 31 USPQ2d 1671, 1675 (Fed. Cir. 1994); In re Donohue, 766 F.2d 531, 533, 226 USPQ 619, 621 (Fed. Cir. 1985). However, prior art references are presumed to be enabling. See In re Sasse, 629 F.2d 675, 681, 207 USPQ 107, 111-12 (CCPA 1980)(citing In re Jacobs, 318 F.2d 743, 745-46, 137 USPQ 888, 889-90 (CCPA 1963)). Thus, it is also well established patent law that the appellants bear the burden of introducing **evidence** that the applied reference lacks an

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enabling disclosure. See In re Fracalossi, 681 F.2d 792, 793,
215 USPQ 569, 570 (CCPA 1982).

Claim 20

Claim 20 reads as follows:

A packaged liquid whole egg product having a shelf life of from about four to thirty-six weeks under refrigerated conditions.

The examiner determined (answer, p. 8) that

Dunn et al discloses a liquid whole egg product which is aseptically packaged and has an extended shelf life of four weeks (e.g. col. 21, line 8 -col. 24, line 20).

The appellants argue (brief, pp. 158-159) that Dunn does not disclose the elements of or enable the present invention. The appellants' arguments are unpersuasive for the following reasons. First, Dunn clearly discloses the product recited in claim 20. Dunn teaches a packaged liquid whole egg product (see column 21, line 7, to column 24, line 15; column 5, line 40, to column 6, lines 8; and the combination of claims 1 and 14) that provides an increase in shelf-life to over 28 days at 4°C. storage (see column 23, lines 62-64). Second, the appellants have not submitted any **evidence** that Dunn is nonenabling. In that regard, attorney's arguments in a brief cannot take the place of evidence. In re Pearson, 494 F.2d

1399, 1405, 181 USPQ 641, 646 (CCPA 1974). Furthermore, expressions of opinion by the appellants' counsel, such as those set forth in the brief, are not considered to be dispositive with regard to the issue of enablement. See In re Reynaud, 331 F.2d 625, 627, 141 USPQ 515, 518 (CCPA 1964). Thus, the appellants have not met their burden of establishing that Dunn is nonenabling.

The appellants argue (brief, p. 158) that Dunn was prepared on a laboratory scale and "thus there is no indication that the results of Dunn *et al.* could be replicated on a commercial scale." Furthermore, the appellants assert that they are not aware of any commercial product produced using the Dunn process. We agree with the examiner (answer, p. 78) that these arguments appear "to pertain to the process used in making said eggs" and that these arguments "are irrelevant since the instant product claims do not call for same" (e.g., not commensurate in scope with claim 20).

The appellants argue (brief, p. 159) that Dunn did not conduct any functionality test on the resulting liquid egg product but took only certain bacteria measurements to estimate shelf life. As such, the appellants argue that there is no evidence that the process of Dunn produced functionally acceptable extended shelf life liquid whole egg product, as required by the instant claims. We again agree with the examiner (answer, p. 79) that there is nothing in the claims concerning the packaged liquid whole egg product being "functionally acceptable." Furthermore, the appellants have not furnished any **evidence** that the packaged liquid whole egg product of Dunn would not be "functionally acceptable."

The appellants further argue (brief, p. 159) that Dunn used liquid whole egg which contained preservatives and had an unspecified percentage of egg yolk removed. However, claim 20 does not exclude a liquid whole egg product which may contain preservatives or have some egg yolk removed. Moreover, it is

our determination from our review of Dunn's disclosure⁷ that Dunn's liquid whole egg complies with the definition of liquid whole egg set forth in the appellants' specification (column 8, line 54, to column 9, line 9) and the egg solids requirement found in 7 CFR § 59.411(d).⁸ Thus, Dunn teaches the product as claimed in claim 20.

The appellants argue (brief, pp. 160-161) that the examiner's application of Dunn in the present application is inconsistent with the treatment of claims in the related reissue application (Application No. 07/880,899) and in another patent application (i.e., Reznik). However, such argument fails to point out why claim 20 is not anticipated by Dunn. Additionally, the appellants have not cited any authority which holds that patentability decisions in other

⁷ See column 4, lines 10-18; column 4, lines 60-65; and column 21, line 7 to column 24, line 20.

⁸ 7 CFR § Part 59 was cited by the appellants (specification, column 9, lines 6-9) as providing the standard meaning of terms used throughout the specification.

applications have any significant precedential value. In evaluating compliance with 35 U.S.C. §§ 102 and 103, each application must be evaluated on the record developed in the Patent and Trademark Office (PTO). See In re Gyurik, 596 F. 2d 1012, 1018 n.15, 201 USPQ 552, 558 n.15 (CCPA 1979) and In re Phillips, 315 F. 2d 943, 137 USPQ 369 (CCPA 1963). To the extent any error has been made in the rejection or issuance of claims in a particular application, the PTO and its examiners are not bound to repeat that error in subsequent applications. Accord, In re Donaldson, 16 F.3d 1189, 1193, 29 USPQ2d 1845, 1849 (Fed. Cir. 1994) ("The fact that the PTO may have failed to adhere to a statutory mandate over an extended period of time does not justify its continuing to do so."); In re Cooper, 254 F.2d 611, 617, 117 USPQ 396, 401 (CCPA), cert. denied, 358 U.S. 840, 119 USPQ 501 (1958) (decision in a trademark application in accordance with law is not governed by possibly erroneous past decisions of the Patent Office); In re Zahn, 617 F.2d 261, 267, 204 USPQ 988, 995 (CCPA 1980) ("[W]e are not saying the issuance of one patent is a precedent of much moment.").

For the reasons stated above, the decision of the examiner to reject claim 20 under 35 U.S.C. § 102(e) is affirmed.

Claims 25-28, 33-35, 46/20, and 46/28

The appellants have grouped claims 20, 25-28, 33-35, 46/20, and 46/28 as standing or falling together.⁹ Thereby, in accordance with 37 CFR § 1.192(c)(7), claims 25-28, 33-35, 46/20, and 46/28 fall with claim 20. Thus, it follows that the decision of the examiner to reject claims 25-28, 33-35, 46/20, and 46/28 under 35 U.S.C. § 102(e) is also affirmed.

Rejection (5)

We sustain the rejection of claims 20, 22, 23, 25-28, 30, 31, 33-35, 46/20, and 46/28 under 35 U.S.C. § 102(b) as being anticipated by either one of the News & Observer article or the PSA abstract.

Claim 20

⁹ See page 8 of the appellants' brief.

The examiner determined (answer, p. 8) that

Either one of the News and Observer article or the PSA reference discloses an aseptically packaged liquid whole egg having a refrigerated shelf life of up to three months.

We agree with the examiner that the News & Observer article and the PSA abstract disclose every feature of claim 20.

The appellants argue (brief, pp. 161-164) that the News & Observer article and the PSA abstract are not enabling disclosures. The appellants' arguments are unpersuasive since the appellants have not submitted any **evidence** that the News & Observer article and the PSA abstract are nonenabling. Thus, the appellants have not met their burden of establishing that the News & Observer article and the PSA abstract are nonenabling.

The appellants argue (brief, p. 164) that the examiner's application of the PSA abstract in the present application is inconsistent with the treatment of claims in the related reissue application (Application No. 07/880,899). Such

argument fails for the same reasons as pointed out above with respect to the rejection utilizing Dunn.

For the reasons stated above, the decision of the examiner to reject claim 20 under 35 U.S.C. § 102(b) is affirmed.

Claims 22, 23, 25-28, 30, 31, 33-35, 46/20, and 46/28

The appellants have grouped claims 20, 22, 23, 25-28, 30, 31, 33-35, 46/20, and 46/28 as standing or falling together.¹⁰ Thereby, in accordance with 37 CFR § 1.192(c)(7), claims 22, 23, 25-28, 30, 31, 33-35, 46/20, and 46/28 fall with claim 20. Thus, it follows that the decision of the examiner to reject claims 22, 23, 25-28, 30, 31, 33-35, 46/20, and 46/28 under 35 U.S.C. § 102(b) is also affirmed.

Rejection (6)

¹⁰ See page 8 of the appellants' brief.

We sustain the rejection of claims 20, 22-27, and 46/20 under 35 U.S.C. § 102(b) as being anticipated by Donchev.

Claim 20

The examiner determined (answer, p. 8) that "Donchev et al discloses a packaged egg having a refrigerated shelf life of 150 days."

The appellants argue (brief, p. 165) that Donchev pertains to "shell eggs which were placed in a plastic bag" and that "shell" egg is distinctly different from "liquid" egg. The appellants assert that Donchev does not teach anything about extending the refrigerated shelf life of a liquid whole egg product. We find the appellants argument unpersuasive for the following reasons.

First, while Donchev pertains to shell eggs, the shell does contain the liquid whole egg. Thus, we find the claimed phrase "packaged liquid whole egg product" to be readable on a shell egg. Since the shell egg of Donchev has a disclosed

refrigerated shelf life falling within the range set forth in claim 20, we conclude that claim 20 is anticipated by Donchev.

Second, even if one would not consider the claimed phrase "packaged liquid whole egg product" to be readable on a shell egg, it is our opinion that the claimed phrase "packaged liquid whole egg product" would be readable on a shell egg packaged in a polyethylene bag as taught by Donchev. Since the shell egg within the polyethylene bag of Donchev has a disclosed refrigerated shelf life falling within the range set forth in claim 20, we conclude that claim 20 is anticipated by Donchev.

For the reasons stated above, the decision of the examiner to reject claim 20 under 35 U.S.C. § 102(b) is affirmed.

Claims 22-27 and 46/20

The appellants have grouped claims 20, 22-27 and 46/20 as standing or falling together.¹¹ Thereby, in accordance with 37 CFR § 1.192(c)(7), claims 22-27 and 46/20 fall with claim 20. Thus, it follows that the decision of the examiner to reject claims 22-27 and 46/20 under 35 U.S.C. § 102(b) is also affirmed.

Rejection (7)

We will not sustain the rejection of claims 22-24 and 30-32 under 35 U.S.C. § 103 as being unpatentable over Dunn.

The examiner determined (answer, p. 9) that

Although Dunn et al discloses a shelf life of over 28 days, it is silent as to the time which extends over 28 days. The instant claims differ in that they specifically call for a shelf life of 8 to 36 weeks (e.g. claim 22), 12 to 16 weeks (e.g. claim 23), or 16 to 36 weeks (e.g. claims 24). However, Dunn et al do show the concept of manipulating the parameters such as refrigerator temperature, pasteurization temperature, and strategy of heating (e.g. by pulsing) to effect a greater shelf life in the final egg product. For example, in fig. 13, Dunn et al shows the concept of extending the egg shelf life by decreasing the refrigerator storage temperatures. Therefore, in view of such teachings, it

¹¹ See page 8 of the appellants' brief.

would have been obvious to one having ordinary skill in the art at the time of the invention to have arrived at a shelf life within the range of the instant claims through routine experimental optimization. *In re Boesch*, 205 USPQ 215.

The appellants argue (brief, pp. 166-168) that the examiner's unsupported belief that one of ordinary skill in the art would have been able to vary the experiments reported in Dunn to produce liquid whole egg products with a shelf life of eight, twelve or sixteen or more weeks simply is not a proper basis for a rejection under 35 U.S.C. § 103. We agree. In that regard, evidence of a suggestion, teaching, or motivation to modify a reference may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved, see Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996), Para-Ordinance Mfg. v. SGS Imports Intern., Inc., 73 F.3d 1085, 1088, 37 USPQ2d 1237, 1240 (Fed. Cir. 1995), although "the suggestion more often comes from the teachings of the pertinent references," In re Rouffet, 149 F.3d 1350, 1355, 47 USPQ2d 1453, 1456 (Fed. Cir. 1998). The range of

sources available, however, does not diminish the requirement for actual **evidence**. That is, the showing must be clear and particular. See, e.g., C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998). A broad conclusory statement regarding the obviousness of modifying a reference, standing alone, is not "evidence." E.g., McElmurry v. Arkansas Power & Light Co., 995 F.2d 1576, 1578, 27 USPQ2d 1129, 1131 (Fed. Cir. 1993); In re Sichert, 566 F.2d 1154, 1164, 196 USPQ 209, 217 (CCPA 1977).

For the reasons stated above, the decision of the examiner to reject claims 22-24 and 30-32 under 35 U.S.C. § 103 is reversed.

Rejection (8)

We sustain the rejection of claims 21 and 29 under 35 U.S.C. § 103 as being unpatentable over any one of Dunn, the News & Observer article, and the PSA abstract as set forth above (i.e., rejections (4)-(6) above) further in view of Fioriti and Bracco.

The examiner determined (answer, p. 10) that

[t]he claims differ in that said egg product has a reduced cholesterol content. However, the art is replete with methods for reducing the cholesterol in egg products as taught, for example, by Fioriti et al (e.g. examples). In addition, Bracco et al teaches cholesterol removal from an egg material prior to pasteurization of same (e.g. col. 3, lines 1-46). Therefore, absent a showing of unexpected results, it would have been obvious to one having ordinary skill in the art at the time of the invention to have employed an egg with reduced cholesterol content in the processes of any one of Dunn et al, the PSA reference, or The News and Observer to provide a healthier egg product with an extended shelf life.

The appellants argue (brief, p. 168) that Fioriti and Bracco do not relate to providing an extended shelf life to a liquid egg product and therefore these references do not cure the deficiencies of the previously applied prior art. Since as noted above, there are no deficiencies in the previously applied prior art, we find this argument unpersuasive.

The appellants assert (brief, p. 169) that the evidence of nonobviousness (brief, pp. 117-144) would be sufficient to outweigh the evidence of obviousness with regard to claims 21 and 29.

We recognize that the evidence of nonobviousness submitted by the appellants must be considered en route to a determination of obviousness/nonobviousness under 35 U.S.C. § 103. See Stratoflex Inc. v. Aeroquip Corp., 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983). Accordingly, we consider the issue of obviousness under 35 U.S.C. § 103, carefully evaluating both the evidence of obviousness cited by the examiner and the objective evidence of nonobviousness supplied by the appellant. See In re Oetiker, 977 F.2d 1443, 1445-46, 24 USPQ2d 1443, 1444-45 (Fed. Cir. 1992); In re Piasecki, 745 F.2d 1468, 223 USPQ 785 (Fed. Cir. 1984).

In this case the appellants have submitted evidence in the form of commercial success, copying by others, unexpected results, long felt need, failed attempts, and acclaim within the industry. With respect to claims 21 and 29, the evidence of nonobviousness is not commensurate in scope with claims 21 and 29. In that regard, the evidence of nonobviousness is not directed to the "reduced cholesterol liquid whole egg product" set forth in claims 21 and 29. Thus, the required nexus

between the evidence of nonobviousness and claims 21 and 29 has not been established. In sum, the appellants simply have not carried their burden to persuasively establish that a nexus existed between the submitted evidence of nonobviousness and the novel features of claims 21 and 29.

In view of the foregoing, we are satisfied that when all the evidence and arguments before us are considered, the evidence of nonobviousness fails to outweigh the evidence of obviousness as in Richardson-Vicks Inc. v. Upjohn Co., 122 F.3d 1476, 44 USPQ2d 1181 (Fed. Cir. 1997) and EWP Corp. v. Reliance Universal, Inc., 755 F.2d 898, 225 USPQ 20 (Fed. Cir. 1985). Accordingly, we sustain the rejection of claims 21 and 29 under 35 U.S.C. § 103.

Rejection (9)

We sustain the provisional rejection of claims 3-17, 18/4, 18/8, 18/12, 18/16, 19/4, 19/8, 19/12, 19/16, 28-35, and 46/28 under 35 U.S.C. § 101 as claiming the same invention as that of claims 1, 3-17, 18/1, 18/4, 18/8, 18/12, 18/16, 19/1, 19/4, 19/8, 19/12, 19/16, 28-35, and 46 of copending reissue Application No. 07/880,899.

In the final rejection (pp. 28-29), the examiner set forth his rationale as to this rejection.

The appellants have not specifically contested this rejection in the brief or reply brief. In fact, the appellants state (brief, p. 172) that they will take appropriate action to delete claims to overcome the pending provisional "same invention" double patenting rejection. Accordingly, we summarily sustain the rejection of claims 3-17, 18/4, 18/8, 18/12, 18/16, 19/4, 19/8, 19/12, 19/16, 28-35, and 46/28 under 35 U.S.C. § 101.

Rejection (10)

We will not sustain the rejection of claims 20-27 and 46/20 under 35 U.S.C. § 112, first paragraph.

The examiner's rejection under 35 U.S.C. § 112, first paragraph, is based upon the reasons set forth in the objection to the specification. In the objection to the specification, the examiner determined (final rejection, pp. 4-5) that

[t]he specification is objected to under 35 U.S.C. § 112, first paragraph, as the disclosure is enabling only for product claims limited to a liquid whole egg product which has been aseptically packaged to achieve a shelf

life of four to 36 weeks. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. In particular, the disclosure is not enabling for product claims which do not recite that said products are aseptically packaged, since the entire disclosure pertains to an aseptically packaged liquid whole egg product having a shelf life of from about four to thirty-six weeks under refrigerated conditions. There is not enough information in the specification to enable one skilled in the art (without undue experimentation) to have provided a liquid whole egg product with such a shelf life in the absence of aseptic packaging. Although it is noted that the specification refers to aseptic packaging as being "preferable" and that said eggs "should be aseptically packaged" as cited from the instant specification by Applicants, these words do not suggest that said extended shelf life may also be achieved without aseptic packaging. Clearly, one may derive from such wording that a liquid egg may be ultrapasteurized without aseptic packaging, but not necessarily to achieve the extended shelf life claimed which is a primary advantage of the instant invention. Whenever aseptic packaging is mentioned in the instant specification, it is mentioned in conjunction with an extended shelf life. The original specification simply does not teach or suggest that the extended shelf life (e.g. claim 20) is enabled in the absence of aseptic packaging.

We agree with the appellants' argument (brief, pp. 169-171) that the 35 U.S.C. § 112, first paragraph, rejection is improper. In that regard, analysis of whether the claims 20-27 and 46/20 are supported by an enabling disclosure requires

a determination of whether that disclosure contained sufficient information regarding the subject matter of claims 20-27 and 46/20 as to enable one skilled in the pertinent art to make and use the claimed invention. The test for enablement is whether one skilled in the art could make and use the claimed invention from the disclosure coupled with information known in the art without undue experimentation. See United States v. Teletronics, Inc., 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988), cert. denied, 109 S.Ct. 1954 (1989); In re Stephens, 529 F.2d 1343, 1345, 188 USPQ 659, 661 (CCPA 1976).

In order to make a rejection, the examiner has the initial burden to establish a reasonable basis to question the enablement provided for the claimed invention. See In re Wright, 999 F.2d 1557, 1561-62, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993) (examiner must provide a reasonable explanation as to why the scope of protection provided by a claim is not adequately enabled by the disclosure). A disclosure which contains a teaching of the manner and process of making and

using an invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented must be taken as being in compliance with the enablement requirement of

35 U.S.C. § 112, first paragraph, unless there is a reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support. Assuming that sufficient reason for such doubt exists, a rejection for failure to teach how to make and/or use will be proper on that basis. See In re Marzocchi, 439 F.2d 220, 223, 169 USPQ 367, 369 (CCPA 1971). As stated by the court,

it is incumbent upon the Patent Office, whenever a rejection on this basis is made, to explain why it doubts the truth or accuracy of any statement in a supporting disclosure and to back up assertions of its own with acceptable evidence or reasoning which is inconsistent with the contested statement. Otherwise, there would be no need for the applicant to go to the trouble and expense of supporting his presumptively accurate disclosure.

In re Marzocchi, 439 F.2d at 224, 169 USPQ at 370.

Once the examiner has established a reasonable basis to question the enablement provided for the claimed invention,

the burden falls on the appellants to present persuasive arguments, supported by suitable proofs where necessary, that one skilled in the art would be able to make and use the claimed invention using the disclosure as a guide. See In re Brandstadter, 484 F.2d 1395, 1406, 179 USPQ 286, 294 (CCPA 1973). In making the determination of enablement, the examiner shall consider the original disclosure and all evidence in the record, weighing evidence that supports enablement¹² against evidence that the specification is not enabling.

Thus, the dispositive issue is whether the appellants' disclosure, considering the level of ordinary skill in the art as of the date of the appellants' application, would have enabled a person of such skill to make and use the appellants' invention as set forth in claims 20-27 and 46/20 without undue

¹² The appellants may attempt to overcome the examiner's doubt about enablement by pointing to details in the disclosure but may not add new matter. The appellants may also submit factual affidavits under 37 CFR 1.132 or cite references to show what one skilled in the art knew at the time of filing the application.

experimentation. The threshold step in resolving this issue as set forth supra is to determine whether the examiner has met his burden of proof by advancing acceptable reasoning inconsistent with enablement. This the examiner has not done. In this regard, we note that the specification refers to aseptic packaging as being "preferable" and that said eggs "should be aseptically packaged." Moreover, we note that it is the function of the specification, not the claims, to set forth the practical limits of operation of an invention. See In re Johnson, 558 F.2d 1008, 1017, 194 USPQ 187, 195 (CCPA 1977).

For the reasons stated above, the decision of the examiner to reject claims 20-27 and 46/20 under 35 U.S.C. § 112, first paragraph, is reversed.

New grounds of rejection

Under the provisions of 37 CFR § 1.196(b), we enter the following new grounds of rejection.

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1. Claims 12 to 15, 18/12 and 19/12 are rejected under 35 U.S.C. § 103 as being unpatentable over the News & Observer article in view of Stadelman and/or Food in Canada.

The News & Observer article discloses that "NCSU researchers crack the secret of long shelflife for eggs" (i.e., liquid whole eggs). The News & Observer article states that by using a higher pasteurization temperature and sterile packaging an extended shelf life of refrigerated liquid whole eggs may be obtained. The News & Observer article discloses that the new process keeps eggs in good shape for up to three months. The News & Observer article teaches that laboratory equipment similar to machinery now used in egg processing was used by the researchers.

Stadelman discloses (pp. 161, 175-180) that it was known in the art to pasteurize liquid whole eggs by passing the liquid whole eggs as a continuous stream through the pasteurizing apparatus. Stadelman also teaches (p. 180) that a turbulent flow pattern is desired.

Food in Canada discloses (p. 28) that it was known in the art to pasteurize liquid whole eggs by passing the liquid whole eggs as a continuous stream through a heat exchanger that imparts turbulent flow to the liquid.

After the scope and content of the prior art are determined, the differences between the prior art and the claims at issue are to be ascertained. Graham v. John Deere Co., 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966).

Based on our analysis and review of the News & Observer article and claims 12 to 15, 18/12 and 19/12, it is our opinion that the only differences are the limitations that the liquid whole egg product is passed as a continuous stream through the pasteurizing apparatus and that the liquid whole egg product is subject to turbulence during the pasteurizing of the liquid whole egg product.

In applying the test for obviousness, we reach the conclusion that it would have been prima facie obvious to one

of ordinary skill in the art at the time the invention was made to have modified the method disclosed by the News & Observer article to have utilized a continuous pasteurizing apparatus which imparts turbulence to the liquid whole egg product as suggested by Stadelman and/or Food in Canada especially in view of the News & Observer article's own suggestion to use machinery now used in egg processing for the self-evident commercial advantages thereof.

2. Claims 16, 17, 18/16 and 19/16 are rejected under 35 U.S.C. § 103 as being unpatentable over the News & Observer article in view of Stadelman and/or Food in Canada as applied above and further in view of Padley and/or the Egg Pasteurization Manual.

Padley discloses a process for the continuous pasteurization of liquid egg material, including liquid whole eggs. Padley teaches (column 3, lines 30-42) to clean/sterilize the pasteurization apparatus before passing the liquid egg material to the pasteurization apparatus.

The Egg Pasteurization Manual teaches (pp. 35-39) to sanitize/clean/sterilize the pasteurization apparatus before passing the next run of liquid egg material to the pasteurization apparatus.

Based on our analysis and review of the News & Observer article and claims 16, 17, 18/16 and 19/16, it is our opinion that an additional difference is the limitation that the pasteurization apparatus is sterilized before the liquid whole egg product is passed therethrough.

In applying the test for obviousness, we reach the conclusion that it would have been further prima facie obvious to one of ordinary skill in the art at the time the invention was made to have modified the method disclosed by the News & Observer article to have sterilized the pasteurization apparatus before the liquid whole egg product is passed therethrough as suggested and taught by Padley and/or the Egg Pasteurization Manual for the self-evident advantages thereof

including compliance with governmental regulations (e.g., 7 CFR § 59.500, et seq.)

CONSIDERATION OF EVIDENCE OF NONOBVIOUSNESS

Having arrived at the conclusion that the teachings of the prior art are sufficient to establish a prima facie case of obviousness with respect to claims 12 to 17, 18/12, 18/16, 19/12 and 19/16, we recognize once again that the evidence of nonobviousness submitted by the appellants must be considered en route to a determination of obviousness/nonobviousness under

35 U.S.C. § 103. See Stratoflex Inc. v. Aeroquip Corp., 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983). Accordingly, we consider anew the issue of obviousness under 35 U.S.C. § 103, carefully evaluating therewith the objective evidence of nonobviousness supplied by the appellants. See In re Oetiker, 977 F.2d 1443, 1445-46, 24 USPQ2d 1443, 1444-45 (Fed. Cir. 1992); In re Piasecki, 745 F.2d 1468, 223 USPQ 785 (Fed. Cir. 1984).

In this case the appellants have submitted evidence regarding (1) commercial success, (2) awards and acclaim in the industry, (3) copying by others, (4) long felt need, (5) unexpected results, and (6) failure of others.¹³

To be of probative value, any secondary evidence must be related to the claimed invention (i.e., a nexus is required). Thus, the weight attached to evidence of secondary considerations will depend upon its relevance to the issue of obviousness and the amount and nature of the evidence. To be given weight in the determination of obviousness or nonobviousness, evidence of secondary considerations must be relevant to the subject matter as claimed, and therefore we must determine whether there is a nexus between the merits of the claimed invention and the evidence of secondary considerations. See Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 305 n.42, 227 USPQ 657, 673-674 n. 42 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017

¹³ For a general discussion of this evidence see pages 117-145 of the brief.

(1986). The term "nexus" designates a factually and legally sufficient connection between the objective evidence of nonobviousness and the claimed invention so that the evidence is of probative value in the determination of nonobviousness. See Demaco Corp. v. F. Von Langsdorff Licensing Ltd., 851 F.2d 1387, 7 USPQ2d 1222 (Fed. Cir.), cert. denied, 488 U.S. 956 (1988).

We do not believe that a nexus between the claimed invention (i.e., claims 12 to 17, 18/12, 18/16, 19/12 and 19/16) and the evidence of secondary considerations has been established. The evidence is directed to an extended refrigerated shelf life liquid whole egg product which is aseptically packaged following receiving thermal treatment above the 5% SPL (BATCH) line of Figure 3, while claims 12 to 17, 18/12, 18/16, 19/12 and 19/16 do not include such limitations.

In view of the foregoing, we are satisfied that when all the evidence and arguments before us are considered, the

evidence of nonobviousness fails to outweigh the evidence of obviousness as in Richardson-Vicks Inc. v. Upjohn Co., 122 F.3d 1476, 44 USPQ2d 1181 (Fed. Cir. 1997) and EWP Corp. v. Reliance Universal, Inc., 755 F.2d 898, 225 USPQ 20 (Fed. Cir. 1985). Accordingly, we reject claims 12 to 17, 18/12, 18/16, 19/12 and 19/16 under 35 U.S.C. § 103 as set forth above.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1 to 19 under 35 U.S.C. § 103 is reversed; the decision of the examiner to reject claims 20, 25-28, 33-35, 46/20, and 46/28 under 35 U.S.C. § 102(e) as being anticipated by Dunn is affirmed; the decision of the examiner to reject claims 20, 22, 23, 25-28, 30, 31, 33-35, 46/20, and 46/28 under 35 U.S.C. § 102(b) as being anticipated by either one of the News & Observer article or the PSA abstract is affirmed; the decision of the examiner to reject claims 20, 22-27, and 46/20 under 35 U.S.C. § 102(b) as being anticipated by Donchev is affirmed; the decision of the examiner to reject claims 22-24

and 30-32 under 35 U.S.C. § 103 as being unpatentable over Dunn is reversed; the decision of the examiner to reject claims 21 and 29 under 35 U.S.C. § 103 as being unpatentable over any one of Dunn, the News & Observer article, and the PSA abstract as set forth above further in view of Fioriti and Bracco is affirmed; the decision of the examiner to provisionally reject claims 3-17, 18/4, 18/8, 18/12, 18/16, 19/4, 19/8, 19/12, 19/16, 28-35, and 46/28 under 35 U.S.C. § 101 as claiming the same invention as that of claims 1, 3-17, 18/1, 18/4, 18/8, 18/12, 18/16, 19/1, 19/4, 19/8, 19/12, 19/16, 28-35, and 46 of copending reissue application No. 07/880,899 is affirmed; and the decision of the examiner to reject claims 20-27 and 46/20 under 35 U.S.C. § 112, first paragraph, is reversed. In addition, new rejections of claims 12 to 17, 18/12, 18/16, 19/12 and 19/16 under 35 U.S.C. § 103 have been added pursuant to provisions of 37 CFR § 1.196(b).

In addition to affirming the examiner's rejection of one or more claims, this decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b)(amended effective Dec. 1, 1997, by final rule notice, 62 Fed. Reg. 53131, 53197 (Oct. 10, 1997)), 1203 Off. Gaz. Pat. Office 63, 122 (Oct. 21, 1997)). 37 CFR

§ 1.196(b) provides, "A new ground of rejection shall not be considered final for purposes of judicial review."

Regarding any affirmed rejection, 37 CFR § 1.197(b) provides:

(b) Appellant may file a single request for rehearing within two months from the date of the original decision

37 CFR § 1.196(b) also provides that the appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of proceedings (37 CFR § 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter

reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

Should the appellants elect to prosecute further before the Primary Examiner pursuant to 37 CFR § 1.196(b)(1), in order to preserve the right to seek review under 35 U.S.C. §§ 141 or 145 with respect to the affirmed rejection, the effective date of the affirmance is deferred until conclusion of the prosecution before the examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.

If the appellants elect prosecution before the examiner and this does not result in allowance of the application, abandonment or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejection, including any timely request for rehearing thereof.

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No time period for taking any subsequent action in
connection with this appeal may be extended under 37 CFR
§ 1.136(a).

AFFIRMED-IN-PART; 37 CFR § 1.196(b)

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Administrative Patent Judge)	
)	
)	
)	
)	BOARD OF PATENT
JEFFREY V. NASE)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
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Administrative Patent Judge)	

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90/003,682

APPEAL NO. 1998-2941 - JUDGE NASE
APPLICATION NO. 08/061,985
REEXAMINATION CONTROL NO.

APJ NASE

APJ McQUADE

APJ KRATZ

DECISION: **AFFIRMED-IN-PART;**
37 CFR § 1.196(b)

Prepared By: Gloria Henderson

DRAFT TYPED: 01 Sep 99

FINAL TYPED: